



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,577	08/31/2001	Kota Kiyama	35.C15744	9442
5514	7590	10/30/2003	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			TRAN, LY T	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/942,577

Applicant(s)

KIYAMA, KOTA

Examiner

Ly T TRAN

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5, 13-15 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 13-15 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-5 and 13-15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koto et al. (JP 143025) in view of Tsuruoka (USPN 5,502,545)

Koto et al discloses a recording apparatus for conveying a recording medium by an endless belt member (Abstract) comprising:

- a plurality of electrodes which line up in such a manner as to be along the surface of the belt that contacts the recording medium (Fig.2, Abstract)
- electrical feeding member for applying a first electrical voltage to a part of the plurality electrodes in such manner that adjacent electrodes have different potential so as to attract the recording medium to a position of the endless belt member located opposed the recording device (Abstract, Fig.2: element 31)
- recording device is an ink jet recording head and ink jet recording head uses a thermal energy as energy for emitting the ink (Fig.2: element 40).
- Plurality of electrodes (element 31) are provided in the endless belt (Element 16)

However, Koto et al. fails to teach:

- a conveyance failure detection element for detecting a conveyance failure of the recording medium,
- a control portion for performing a control of belt member and electrical feeding member based on a detection signal of the conveyance failure detection element, the electrical feeding member feeding the second electrical voltage value to remove an attraction force of the endless belt member,
- discharge portion for discharging a recording medium outside the apparatus and the conveying failure detection element is a discharge conveyance failure detection element for detecting the conveyance failure of the recording medium in the vicinity of the discharge portion,
- control portion control the electrical feeding member in such a manner that the potentials of plurality of electrodes are equalized according to the detection of the conveyance failure by the conveyance failure detection element and control portion performs an elimination of the charge which is charged in the plurality of electrodes according to the detection of the conveyance failure

Tsuruoka teaches:

- a conveyance failure detection element for detecting a conveyance failure of the recording medium (Column 8: line 60-63)

- a control portion for performing a control of belt member and electrical feeding member based on a detection signal of the conveyance failure detection element, the electrical feeding member feeding the second electrical voltage value to the position of the endless belt member (Fig.2: element 37, Column 11: line 11-67, Column 12: line 1-19 and Abstract, by destaticize the transfer belt, no voltage or a zero voltage is applied to the belt, the zero voltage is a second voltage value fed to the belt )
- discharge portion for discharging a recording medium outside the apparatus and the conveying failure detection element is a discharge conveyance failure detection element for detecting the conveyance failure of the recording medium in the vicinity of the discharge portion (Fig.2: element S9).
- With respect to the limitation of control portion control the electrical feeding member in such a manner that the potentials of plurality of electrodes are equalized according to the detection of the conveyance failure by the conveyance failure detection element and control portion performs an elimination of the charge which is charged in the plurality of electrodes according to the detection of the conveyance failure, while Tsuruoka does not specifically teach these features, Tsuruoka teaches applying electricity to the belt member so as to absorb a recording medium to the surface of the belt (Column 5: line 52-62) detecting conveyance failure (Column 8: line 60-63) and based on the detection,

destaticize the transfer belt (Abstract), it does provide the general teaching of cutting of the voltage by destaticize the transfer belt to equalize the potentials of plurality of electrodes, so as to easily to remove the paper jam.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teaching of Koto et al. to have a detector, feeding a second voltage to the belt, equalize the potentials of plurality of electrodes as taught by Tsuruoka. The motivation of doing so is easier to release paper jam.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koto et al. (JP 143025) in view Tsuruoka (USPN 5,502,545) as applied to claim 1 above, further in view of Stoeberl (USPN 4,549,826).

The combination of Koto and Tsuruoka fails to teach the conveyance failure element detects a separation gap of the recording medium on the belt member from the belt member in the direction of the recording device.

Stoebert teaches a sensor coupled to the paper leveling gap, detecting curl paper ends, folds at the end of the roll that are too pronounced and that could potentially lead to jamming of the paper (Column 1: line 11-12, line 45-52) by detecting the curl paper end, the gap between the belt and the paper is obtain in order to detect the conveyance failure, sensing means for detecting the moveable member further away from stationary member than the minimum preset width of the gap (Column 3: line 36-47, line 46-49).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a sensor coupled to the paper leveling gap, detecting curl paper ends, folds at the end of the roll that are too pronounced and that could potentially lead to jamming of the paper sensing means for detecting the moveable member further away from stationary member than the minimum preset width of the gap as taught by Stoeberl. The motivation of doing so is in order to avoid a malfunctioning paper feed therefore obtain a high paper consumption.

### ***Response to Arguments***

3. Applicant's arguments filed 8/12/03 have been fully considered but they are not persuasive.

Applicant's argument that destatisizing corotrons 37 are not located in a position opposite a recording device and the construction of the corotron in Tsuruoka is different than plurality of electrodes lined up so as to be along a surface of an endless belt member that contacts a recording medium is not persuasive because in the Office Action, the Examiner stated that Koto the plurality of electrodes lined up so as to be along a surface of an endless belt member that contacts a recording medium and located opposed to the recording device, not Tsuruoka. Using the teaching of Tsuruoka only refer for destaticize feature. Therefore, the combination of Koto and Tsuruoka still meets the claimed invention.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T TRAN whose telephone number is 703-308-0752. The examiner can normally be reached on M-F (7:30am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 703-308-4896. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-308-7724 for After Final communications.



Application/Control Number: 09/942,577


Page 8

Art Unit: 2853

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0967.

A handwritten signature, possibly reading "H", in black ink.

October 22, 2003

A handwritten signature in black ink, appearing to be "Stephen D. Meier".

**Stephen D. Meier**  
**Primary Examiner**